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GEOG-339
Assignment 1

Introduction

For this assignment, I was given data on the percentage of Democratic voters in each Texas state county in the 2020 presidential election. I was tasked with creating 3 maps demonstrating the difference between classification methods (Natural breaks, equal interval, and quantile) when mapping data.

Maps

Figure 1. Natural Breaks Map

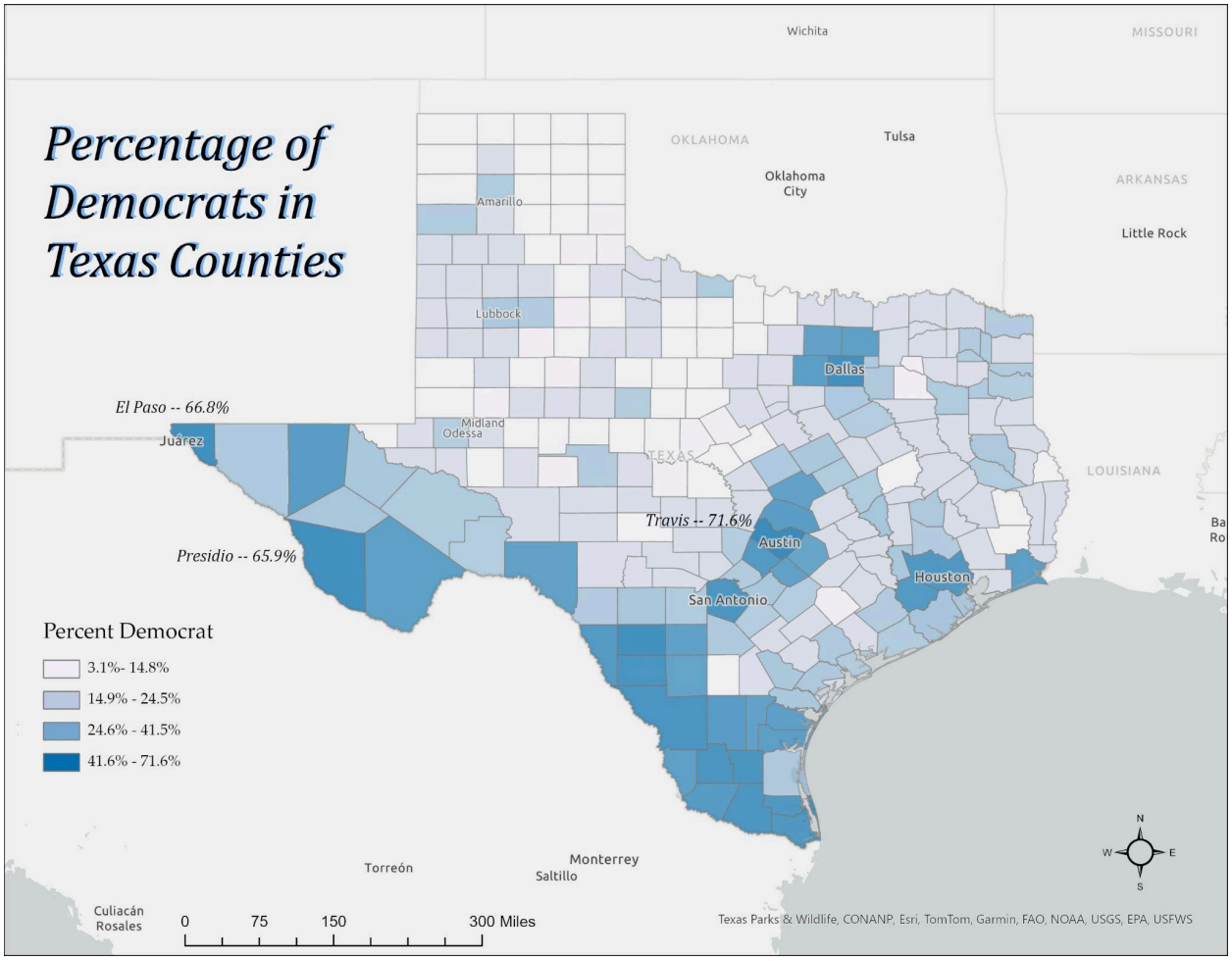


*Figure 2. Equal Interval *based on range* Map*

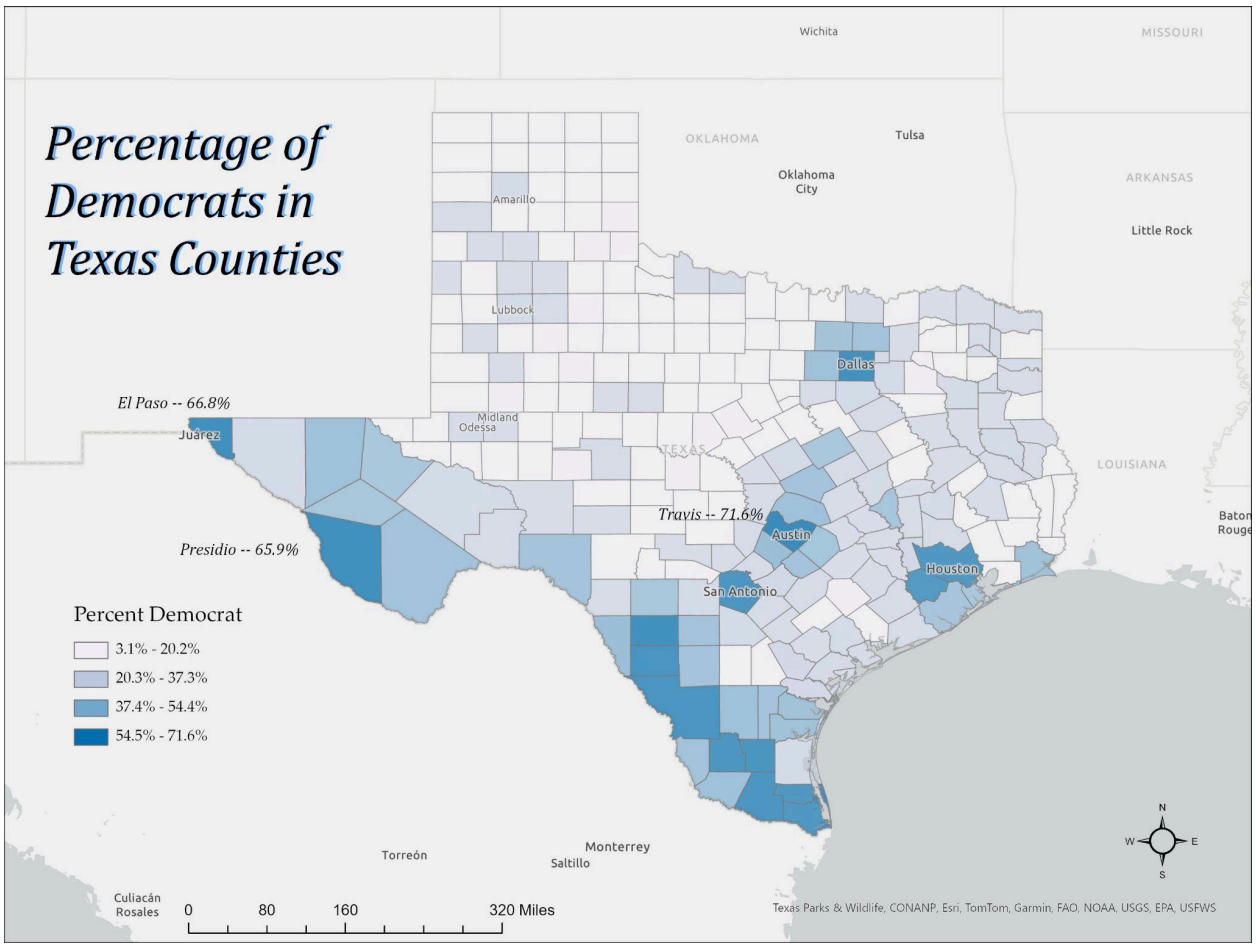
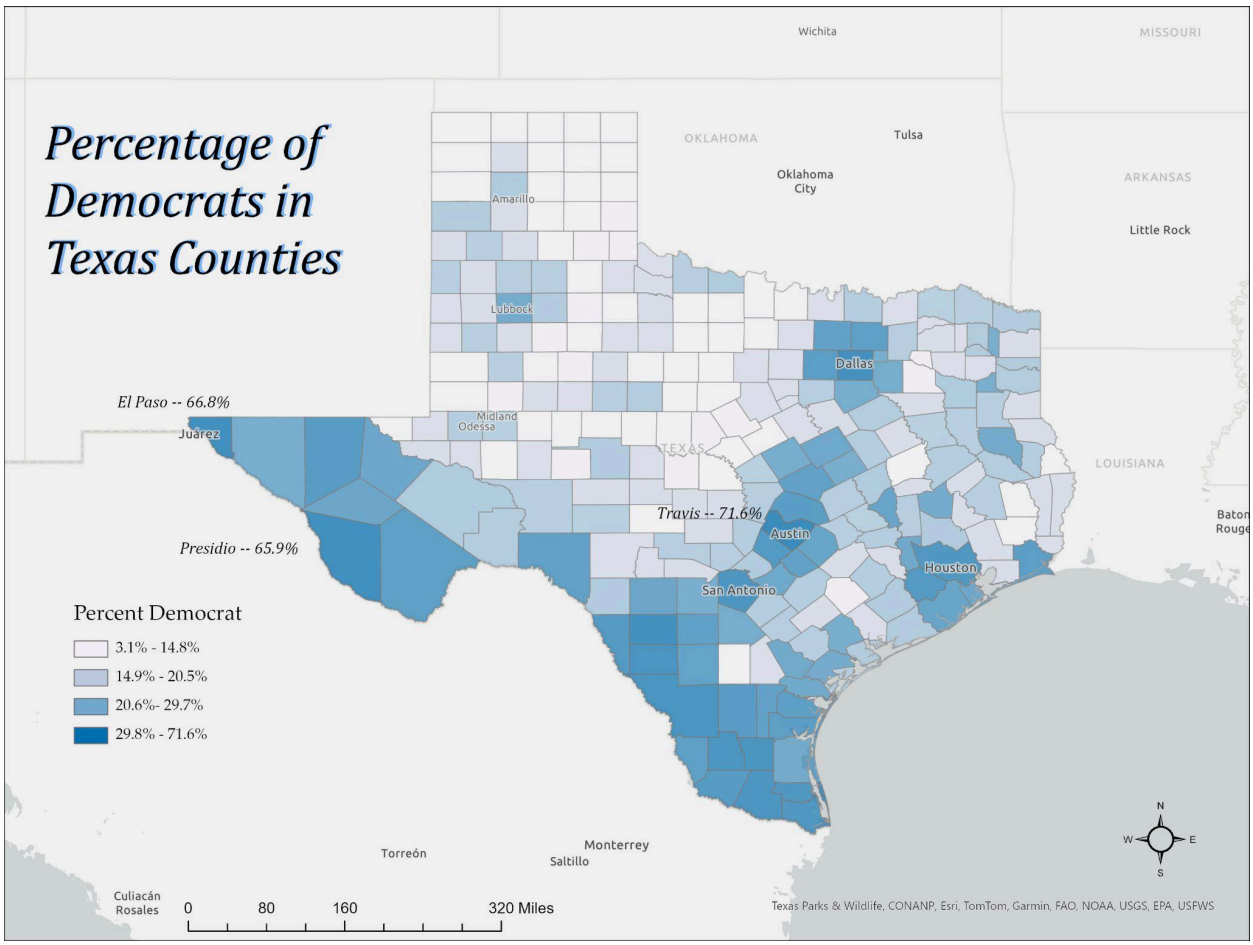


Figure 3. Quantile Map



Natural Breaks Method – Figure 1

The Natural Breaks method of data classification is a subjective method of classification. You, or the computer, will decide where the breaks should be depending on the larger data differences.

Equal Interval Classification Method – Figure 2

The Equal Interval data classification method (based on range) is not subjective. The range of your dataset is divided by the number of desired classes and that is

where the breaks will be. A potential risk with this method is that there will be a lot of variation so some classes may have no data in them.

Quantile Method – Figure 3

The Quantile method is when each class will have the same amount of observations among them. This method often will have similar observations represented in different classes.

Discussion – patterns & Differences

In all three maps, there are similarities and there are differences. Like most other states in the U.S., the Higher democratic counties tend to have or be near bigger cities. Austin, Dallas, Houston, San Antonio, etc. are in the highest class for Percent Democrat in all three maps.

Another pattern seen in all three of these maps is the southern counties, ones that border or are near Mexico, have the highest percentage of Democrats. Border patrol and immigration were very hot-button issues in the 2020 election which contributed to the voting behavior in the counties of Texas.

The Natural Breaks map and the Quantile map have data classes that range too high and are too lenient for this data. For example, in the Quantile map *(Figure 3.)* the highest data class ranges from 29.8% to 71.6% which means that many of those counties did not vote a majority Democrat. This map might be better utilized as a scare tactic for Republican Texans wanting to send a message but it is not a good representation of how Texans voted in those counties.

The map that best represents “Percent Democrat” is the Equal interval (based on range) map. All data classes are dispersed fairly and the highest class (54.5% - 71.6%) gives an accurate representation of the counties that voted Democrat.